

Habetler, Thomas G.

S/N: 10/065,975

REMARKS

Claims 1–23 are pending in the present application. In the Office Action mailed March 18, 2004, the Examiner rejected claims 1, 7, and 23 under 35 U.S.C. §102(b) as being anticipated by Lang et al. (USP 5,521,482). The Examiner next objected to claims 2–6 as being dependent upon a rejected base claim. Applicant appreciates the allowability of claims 8–22.

Regarding claim 1, the Examiner asserted that Lang et al. discloses “simultaneous sampling of voltage and current data of an induction machine is operation occurs.” Grammatical errors notwithstanding, it appears that the Examiner has cited Fig. 1, elements 42–54 as teaching simultaneous sampling of voltage and current data from an induction machine in operation, as claimed. However, Fig. 1 includes no such disclosure nor could one of ordinary skill in the art discern from Fig. 1 that any induction machine is, in fact, in operation. To the contrary, Lang et al. is clear that any sampling of voltage and current data or derivation of data whatsoever from an induction machine must occur during startup. Lang et al. specifically teaches “determining electrical and mechanical performance for a polyphase motor system using an electrical signature of the motor during startup.” Col. 4, Ins. 6–9 (emphasis added). Lang et al. repeatedly states that any system or method is limited to analysis only during startup of the motor. See col. 3, Ins. 51–54, col. 9, Ins. 25–30, col. 19, Ins. 57–59, col. 20, In. 65–col. 21, In. 2, and col. 21, In. 51–col. 22, In. 12.

One of ordinary skill in the art will readily recognize that the electrical signature of the motor during startup is typically drastically different from a motor in operation. While Lang et al. is specifically drawn to analysis of a motor’s electrical signature during startup, the claimed invention requires the motor to be “in operation.” The specification is clear that “[p]rocess 36 begins at 38, with the acquisition of two line voltages and two line currents from a loaded AC induction motor in operation at 40.” Pg. 8, ¶2 (Emphasis added). Therefore, reading claim 1 with its broadest interpretation in light of the specification, the induction machine must be in operation before any sampling of voltage and current data is derived. This is directly contrary to Lang et al., which requires that any sampling of voltage and current data must occur during the startup phase of the motor, i.e. prior to operation of the motor. Col. 4, Ins. 6–9. Accordingly, claim 1 is patentably distinct from the art of record. As such, claim 7 is in condition for allowance pursuant to chain of dependency.

Regarding claim 23, the Examiner cited col. 4, Ins. 21–24 for support when rejecting the claim. However, not only does the cited section fail on its face to teach that which is claimed, the

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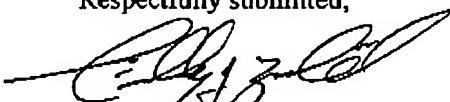
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Examiner failed to acknowledge the prerequisite to the cited section that contradicts the Examiner's position. Specifically, col. 4, lns. 6-9 teach "an apparatus for determining electrical and mechanical performance of a polyphase motor system using an electrical signature of the motor during startup." (Emphasis added). On the other hand, claim 23 explicitly calls for "means for acquiring voltage and current data of an AC motor in operation." (Emphasis added). As previously discussed with respect to claim 1, one of ordinary skill in the art will readily recognize that voltage and current data of AC motor in operation is typically drastically different from any electrical signature of a motor during startup. As such, any means for acquiring operational voltage and current would necessarily differ from a means for acquiring such data during startup, as required by Lang et al. Therefore, claim 23 is readily distinguishable from the art of record and believed patentably distinct.

Therefore, in light of at least the foregoing, Applicant respectfully believes that the present application is in condition for allowance. As a result, Applicant respectfully requests timely issuance of a Notice of Allowance for claims 1-23.

Applicant appreciates the Examiner's consideration of these Amendments and Remarks and cordially invites the Examiner to call the undersigned, should the Examiner consider any matters unresolved.

Respectfully submitted,



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Dated: 5/19/04  
Attorney Docket No.: ETC7455-030

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